(12) UK Patent Application (19) GB (11) 2 241 165 (13) A

(43) Date of A publication 28.08.1991

(21) Application No 9103725.9

(22) Date of filing 22.02.1991

(30) Priority data
(31) 9004182 (32) 23.02.1990 (33) GB

(51) INT CL[5]
A61H 33/06

(52) UK CL (Edition K)
A4N N2F

(56) Documents cited
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(58) Field of search
UK CL (Edition K) A4N
INT CL[5] A47K, A61H

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(54) Portable booth

(57) A collapsible, portable booth, of generally circular cross-section, comprises a roof part 2, a base part 4 and an intermediate part 6. The base is adapted to stand on the floor. Within the booth is a foldable chair 8. A person may gain access to the booth via a door 10 having a hinged edge 12 and a slide fastener 14. A steam kettle is provided below a false floor of the base part 4. Various collapsible and/or foldable arrangements are disclosed.

In use, steam and aromatic vapour from essential oils is produced which fills the booth within which a person is seated.

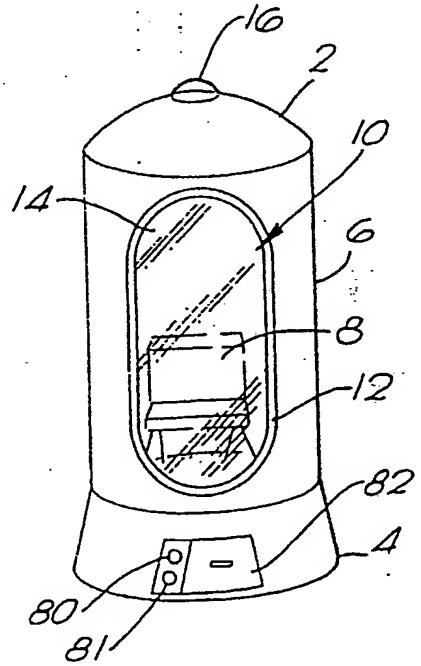

FIG.1

GB 2 241 165 A

BOOTH

This invention relates to a portable booth apparatus, and, in preferred embodiments, to such apparatus for providing a dry heat, steam and/or vapour environment. The invention also relates to non-portable apparatus for providing a steam or vapour environment. The invention further relates to the use of apparatus for providing a dry heat, steam or vapour environment.

The use of dry heat, steam or vapour baths, for example Sauna or Turkish baths, has long been recognised as relaxing and beneficial. However, home units are complex and expensive, and bulky, permanent structures. Many people do not have the space to accommodate such a structure, or, even if they have the space, and can afford one, would not think the expense of installing such a unit as worthwhile, although recognising their beneficial and relaxing properties.

In accordance with a first aspect of the present invention there is provided apparatus for providing a dry heat, steam and/or vapour environment for one or more persons, the apparatus comprising an enclosure defined by an enclosure wall, the enclosure wall having an opening sufficient in size for a person to enter or leave the enclosure through it, and a closure part to close the opening, wherein the enclosure is such as to be able to be collapsed and/or taken apart in order to adopt a more readily portable configuration, and subsequently re-configured, the enclosure wall being of a material to substantially retain heat, steam and/or vapour within it, the apparatus further comprising means for raising dry heat, steam and/or vapour.

The means for raising dry heat, steam and/or vapour may suitably comprise an electrical heater, preferably powered by mains electricity. The apparatus may solely be arranged to produce dry heat, or solely arranged to produce steam or vapour. The apparatus is suitably adapted to raise dry heat on the one hand, and steam or vapour on the other hand, as selected. In use for raising steam or vapour, therapeutic or aromatic oils, chemicals, herbal extracts etc. may be added to water to be heated to give aromatic vapour.

The apparatus may comprise thermostatic control means comprising a thermostat to sense the temperature within the enclosure and means to interrupt the supply of current to the heater when a pre-determined temperature (which is suitably under the control of the occupant) is reached.

A user-operable timer is suitably provided by which a user may set the time for which he/she intends to be within the dry heat, steam or vapour environment.

The enclosure is suitably collapsible. Thus, the enclosure wall is suitably of a flexible sheet material. The flexible sheet material may be arranged to define an elongate arrangement in use, wherein the height of the arrangement is greater than the width. It is preferably sufficiently rigid in itself to support a roof part of the apparatus. Preferably, the flexible sheet material defines a cylinder in use which is sufficiently rigid in itself to support a roof part of the apparatus. The enclosure wall may alternatively or additionally be supported by, for example, pin-jointed struts. It may be foldable in the manner of a concertina. It may be foldable along pre-defined fold lines, in the manner of a

cardboard box. It may be such as to be rolled up for storage.

Preferably, the enclosure is substantially of a plastics material. Suitably, at least a part of the enclosure wall is transparent. In certain embodiments the enclosure wall could be flexible, in the sense of being unable to support itself, so requiring means such as struts to support it, but in other embodiments the enclosure wall could be flexible but self-supporting, or rigid.

The apparatus is suitably arranged to channel water therein into a well disposed at a lower end of the apparatus. Suitably, means, for example, a sponge is provided in said well for absorbing water. In use, the sponge may be removed from the well and the water squeezed from the sponge.

Suitably, the apparatus is sufficiently light as to be easily carried. For example, it may weigh no more than 20 or 30 pounds. Preferably, it weighs less than 20 pounds. Preferably, the apparatus includes fluid reservoir, suitably an integral fluid reservoir, for water, arranged such that, in use, water in the reservoir may be evaporated by said means for raising dry heat, steam and/or vapour. Thus, the apparatus, suitably requires no external plumbing for the production of steam or vapour. Alternatively, it may be plumbed in.

Preferably, the means for raising dry heat, steam and/or vapour is contained within the enclosure. However, the means for raising dry heat, steam or vapour could be

located within a separate unit which is connectable to the enclosure, for example by means of a flexible hose.

The apparatus may contain within it, in use, a seat or seats appropriate for the size of the enclosure. Suitably, such seat or seats is/are collapsible or foldable.

In accordance with a second aspect of the present invention there is provided apparatus for providing a portable enclosure for one or more persons, (which enclosure may be used to provide a dry heat, steam or vapour environment, or may be used for other purposes, for example as a tent, protective capsule in toxic environments, shower enclosure etc.) the apparatus comprising a generally rigid base part, a generally rigid roof part, and an enclosure wall therebetween, the enclosure wall having an opening sufficient in size for a person to enter or leave the enclosure through it, and a closure part to close the opening, wherein the enclosure is such as to be able to be collapsed and/or taken apart in order to adopt a more readily portable configuration, and subsequently re-configured, wherein the base part and the roof are securable together in said portable configuration, the enclosure wall either being located therebetween, having been collapsed, or having been removed.

Suitably, in accordance with the second aspect of the invention, the roof part and base part are securable together to form a carrying case. Thus, at least one of the parts preferably comprises a carrying handle. The roof part is preferably domed or otherwise sloped towards the sides of the enclosure, to prevent dripping of condensed water onto the occupant.

Preferably, in use, the portable enclosure is generally cylindrical in shape.

The closure part is preferably securable to substantially seal the opening, for example against the loss of dry heat, steam or vapour. To this end, the closure part may be securable around the opening by means of Velcro (Trade Mark), by slide fasteners or by zips. Suitably, the closure part is a sliding door.

The enclosure wall may be such as to efficiently retain heat within the enclosure. Thus, it may be double-glazed, or of honeycomb form.

The apparatus, or parts of it, may be inflatable. For example, the enclosure wall may be inflatable; the seat may be inflatable; and so forth.

In certain embodiments, the seat may act as a support for the roof part.

Preferred apparatus of the present invention is in accordance with both the first and second aspects defined above.

In another aspect, there is provided apparatus for location over a bath to provide a substantially enclosed steam or vapour environment, the apparatus comprising an enclosure wall arranged to be fixed to or adjacent to the bath and arranged to move between a first storage position and a second, in use, position wherein the enclosure wall defines, with the bath, a substantially enclosed steam or vapour environment.

Suitably, the bath is a one-person domestic bath.

Preferably, the enclosure wall comprises two opposing longitudinally extending sides which when said enclosure wall is in said second position, are disposed substantially opposite respective longitudinally extending side walls of the bath. Suitably, when in said second position, said respective opposite longitudinally extending sides of the enclosure wall are located on or adjacent to opposite respective longitudinally extending side walls of the wall.

Suitably, the enclosure wall is flexible. In this case, preferably, when in said first storage position, the enclosure wall is in a substantially collapsed state and, when in said second position, said enclosure wall is suitably in an extended state.

In one preferred embodiment, means for supporting the enclosure wall and means for engaging against the upper part of the side walls of a bath are provided, the enclosure wall being adapted to droop into the bath water around its periphery to thereby form the enclosed environment above the bath water. Suitably the enclosure wall is supported by battens. The battens may have parts, for example L- or U-shaped parts, at their ends, adapted to engage the upper parts of the side walls of a bath. The battens may be normally straight but longer than the width of the bath, but can be flexed to fit, thereby shaping the enclosure wall, as well as providing firm securement. Suitably, the battens may be longer towards one end, the head end in use, so providing more space beneath the enclosure wall, and shorter towards the feet end.

In a more preferred embodiment, the enclosure wall may be moveable about a longitudinally extending axis

which is suitably disposed on or closely adjacent to a longitudinally extending side wall of the bath. The apparatus may include two frame members arranged to be located, in use, adjacent to opposing ends of the bath, and arranged to cooperate with the enclosure wall so as to support it and guide the movement thereof between the first and second positions. Preferably, said frame members are arcuate in shape.

Preferably, the enclosure wall is in the form of a rigid dome. The dome is suitably arranged to pivot between said first and second positions.

The invention extends to the use of apparatus according to any of the preceding statements for exposing a person to a dry heat, steam or vapour environment. Preferably, the apparatus is for use in aromatherapy.

The invention will now be further described, by way of example, with reference to the accompanying drawings in which:

Figure 1 shows a steam booth configured for use;

Figure 2 shows in schematic view an exploded view of the booth of Figure 1;

Figure 3 shows the booth of Figure 1 in its collapsed form ready for carriage or storage;

Figure 4 shows views, perspective, plan and elevational, of the base part of Figures 1 to 3;

Figure 5 shows a view of the connection between the top and side parts of the booth of Figures 1 to 4;

Figure 6 which are various embodiments in collapsed form ready for storage or carriage;

Figures 7 shows three views of a further embodiment, of a booth similar to that of Figure 1 to 3, but having pin-jointed side support means;

Figures 8a to d show respectively a perspective view, a side elevation, an end elevation and a cross-section along line A-A of a horizontal booth;
Figure 9 shows a horizontal booth for connection to a bed;
Figure 10 shows a hanging unit;
Figure 11 show a unit in which the side wall is arranged to collapse in the fashion of a concertina;
Figure 12 show apparatus for use in connection with a bath;
Figure 13 show a further embodiment of wall part.
Figure 14 shows further apparatus for use in connection with a bath; and
Figure 15a and 15b show a further embodiment for use in connection with a bath; and
Figure 16 shows a further embodiment for use in connection with a bath.

The booth shown in Figure 1 is of size to admit a single person. It comprises a roof part 2, a base part 4, and an intermediate wall part 6. The booth is circular in cross-section. The base 4 is adapted to stand on the floor. Within the booth is a foldable chair 8. Access to the interior of the booth is via a door 10 having a hinge edge 12 and, around the rest of the opening, slide fastener 14.

The roof part 2 is domed in shape, internally and externally, and has at its highest position a carrying handle 16. The wall part 6 and door 10 is of a self-supporting plastics sheet material, and is transparent. The seat 8 is of plastics material, and when folded, locates snugly within the interior of the booth. The base part 4, and the roof part 2, are of a plastics material. The base part 4 has a false floor 17 which is supported from beneath by ribs 18. Beneath the false floor is a

steam kettle 20. The steam kettle has a lid 72 which is used for filling purposes.

Steam issues from the kettle 20 via a steam vent 74. The vent is arranged so that steam is not directed at an occupant of the booth. In this regard, the back of chair 8 may act to deflect steam away from the occupant.

The false floor 17 slopes downwardly towards a drain plug 124.

Control means (not shown) for the steam kettle 20 is also located beneath the false floor. This control means operates in response to a signal received from a thermostat (not shown) within the enclosure proper, to interrupt the current to the electrical heater element for the kettle, when the temperature reaches a pre-determined level (which may be selected by the occupant).

A timer 80, thermostat 81 and display panel 82 are provided.

In this embodiment the kettle is powered by mains electricity via a flexible connector 50.

The apparatus may be separated into three parts, as shown in Figure 2, by simply pulling them apart in an axial direction. The means by which the roof part is connected to the wall part is shown in Figure 5; the upper rim of the wall part fits within a circumferential groove 24 formed in the roof part. Correspondingly, the lower edge of the wall part has a circumferential groove into which the upper rim of the base part fits. Once the parts are separated, the folded seat may be placed on the false floor and the roof part may then be fitted against the

base part, with interengagment of the rim and circumferential groove, and secured by means of toggle clips 26 (see Figure 3). The base part/roof part assembly shown in Figure 3 may then be carried by means of handle 16. The wall part may be rolled up for transportation.

Figure 6 shows various other possibilities. One of the sketches shows a wall part of a flexible plastics material 30 which may be folded and placed between the roof part and the base part. Another embodiment shows a folded side wall 32 of a rigid plastics material. In the case of the flexible material, it is necessary to provide means for supporting the roof part above the base part in use. For example, struts may be employed for this purpose.

Figure 7 shows a convenient embodiment with a wall part 4 of a flexible transparent plastics material. Supporting the roof part in use above the base part are three pin-jointed struts 34 which, as shown, may be collapsed in order to bring the roof part towards the base part for storage or transportation. The diameter of the booth, and the geometry of the struts, is such that, on being collapsed, they nest between the base part and roof part.

Figure 8 shows embodiments of the invention intended for horizontal use. The embodiments have a generally flat lower base wall 38, and a curved upper wall 40, and end walls 42, 44. Tie rods 80 are provided to support the booth. Access to the booth, which again, is intended for occupancy by a single person, is via an opening 46 opened and closed by a slide fastener 48. At the end 42 is a walled off section in which steam kettle 50 is located,

and beneath kettle 50 is a waste tray 52 into which condensed water is arranged to flow.

The base 38 of the unit shown in Figure 8 is of an inflated bed type.

Figure 9 shows apparatus for connection to a bed, comprising a flexible transparent plastics wall part, supported by hoops. Extending from each end of the apparatus is a fastening device by means of which the apparatus can be fixed between the bedhead and footboard. In this embodiment, the steam-raising apparatus is not located within the booth itself, but adjacent thereto, being connected to the booth by a flexible hose 54.

In this embodiment, it is comfortable to use the apparatus by lying on a towel placed within the booth, which also serves to absorb condensed water. Alternatively or additionally, water could be absorbed by sponges located in pockets within the booth.

Figure 10 shows a hanging embodiment in which the uppermost point of the roof part is provided with a hook. The purpose of the hook is not to entirely suspend the booth; the base part suitably rests in use on a floor or other flat surface. However, the hook can be connected to a tensioning means, for example a rubber bungee, whereby the booth may be drawn up to its full size. An opening 200 may be opened and closed by means of a zip.

Figure 11 shows in schematic form an embodiment in which the wall part may be collapsed and expanded in the manner of a concertina. The wall part can be maintained in its expanded configuration by means of a hook and tensioning means, as in Figure 10, or struts, as in

earlier embodiments; and various other possibilities exist.

Figures 12 to 16 show embodiments for use above a bath, to provide a steam enclosure. Oils may be added to the bath water to provide a steam and vapour environment. In these embodiments the hot bath water provides the steam. In Fig. 12 a canopy is provided to fit above the bath. The canopy comprises a wall part of a flexible transparent plastics material, supported by a plurality of cross-battens 60 each of which has, at each of its ends, an L-shaped foot 62 designed to fit securely against the edge of the bath. The battens are suitably flexible, for example being plastics rods, and in their straight, relaxed condition, are wider than the bath. To secure the canopy to the bath, they are flexed, whereupon the feet 62 engage the edge of the bath, as shown. Provision may be made for varying the length of the battens to increase or decrease the volume of the canopy. Longer battens are provided towards the head end. It will be noted that the sides 64 and ends 66 of the canopy droop into the bath water, so that steam does not escape.

In the embodiment shown in Figure 13, a wall part is shown which is an extruded tube formed deliberately with diametrically-opposed weak zones, whereby the parts may be folded, as shown.

Alternative embodiments for use above a bath are shown in Figures 14 and 15. A bath 150 includes a hood 151 attached thereto and moveable about axis 152. The hood includes a frame which is covered with and supports transparent plastics material. In a storage position, the hood may be folded back upon itself in a concertina-like fashion, to enable entry of a person into the bath. In

use, the hood may be unfolded, utilising a handle (not shown), so that outer edges of the hood abut against upper sides of the bath so as to form a capsule over the bath which retains, to some extent, steam generated by hot water (and vapour from essential oils, if added) in the capsule.

A bath 160 (Figures 15) includes frame members 161 attached to opposing ends of the bath and within which frame members 161 are transparent end panels 167.

The frame members 161 are arranged to cooperate, by means of grooves, with projections on a hood 162. The hood 162 is mounted on a roller and stored along an edge 163 of the bath. The hood includes a handle 155.

In use, the hood is guided by the grooves until it abuts against an edge 164 of the bath and thereby defines, with the bath, a substantially enclosed environment.

A bath 180, shown in Figure 16, is suspended at opposing ends thereof from a fulcrum 181 provided on a support member 182 fixed to the ground. A cover dome 183, of generally semi-circular cross-section is also suspended, at opposing ends, from the fulcrum 181. In use, the cover dome 183 may be pivoted from a position in which it is generally below an upper surface 184 of the bath to a position wherein it is generally above the upper surface 184 of the bath, in which position it may provide, with the bath, a substantially enclosed environment.

All of the features disclosed in this specification (including any accompanying claims, abstract and drawings), and/or all of the steps of any method or process so disclosed, may be combined in any combination,

except combinations where at least some of such features and/or steps are mutually exclusive.

The invention is not restricted to the details of the foregoing embodiment(s). The invention extends to any novel one, or any novel combination, of the features disclosed in this specification (including any accompanying claims, abstract and drawings), or to any novel one, or any novel combination, of the steps of any method or process so disclosed.

CLAIMS

1. Apparatus for providing a dry heat, steam and/or vapour environment for one or more persons, the apparatus comprising an enclosure defined by an enclosure wall, the enclosure wall having an opening sufficient in size for a person to enter or leave the enclosure through it, and a closure part to close the opening, wherein the enclosure is such as to be able to be collapsed and/or taken apart in order to adopt a more readily portable configuration, and subsequently re-configured, the enclosure wall being of a material to substantially retain heat, steam and/or vapour within it, the apparatus further comprising means for raising dry heat, steam and/or vapour.

2. Apparatus according to claim 1, the apparatus being arranged in use to produce an aromatic vapour.

3. Apparatus according to claim 1 or claim 2, wherein the enclosure wall is of a flexible sheet material.

4. Apparatus according to claim 3, wherein the flexible sheet material is arranged to define a cylinder, in use, which is sufficiently rigid in itself to support a roof part of the apparatus.

5. Apparatus according to any of the preceding claims, the apparatus including a fluid reservoir for water arranged such that, in use, water in the reservoir may be evaporated by said means for raising dry heat, steam and/or vapour.

6. Apparatus according to any of the preceding claims, wherein said means for raising dry heat, steam and/or vapour is contained within the enclosure.

7. Apparatus for providing a portable enclosure for one or more persons, the apparatus comprising a generally rigid base part, a generally rigid roof part, and an enclosure wall therebetween, the enclosure wall having an opening sufficient in size for a person to enter or leave the enclosure through it, and a closure part to close the opening, wherein the enclosure is such as to be able to be collapsed and/or taken apart in order to adopt a more readily portable configuration, and subsequently re-configured, wherein the base part and the roof are securable together in said portable configuration, the enclosure wall either being located therebetween, having been collapsed, or having been removed.

8. Apparatus according to any of claims 1 to 6 in combination with apparatus according to claim 7.

9. Apparatus according to claim 7 or claim 8, wherein the roof part and base part are securable together to form a carrying case.

10. Apparatus for location over a bath to provide a substantially enclosed steam or vapour environment, the apparatus comprising an enclosure wall arranged to be fixed to or adjacent to the bath and arranged to move between a first storage position and a second, in use, position wherein the enclosure wall defines, with the bath, a substantially enclosed steam or vapour environment.

11. Use of an apparatus according to any of claims 1 to 10 for exposing a person to a dry heat, steam or vapour environment.

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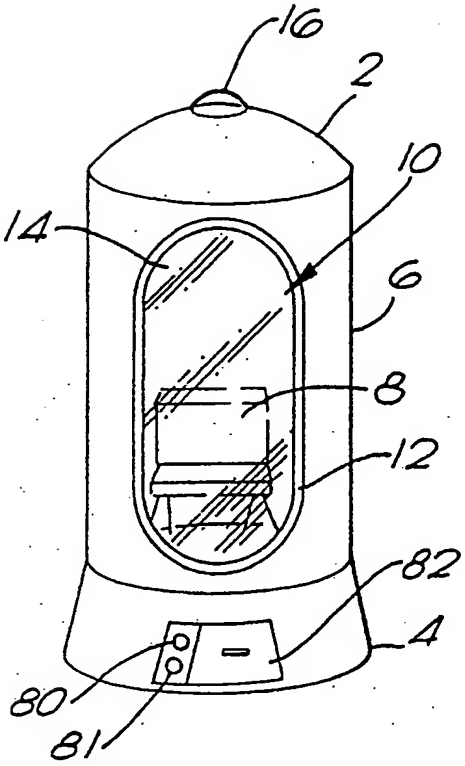


FIG. 1

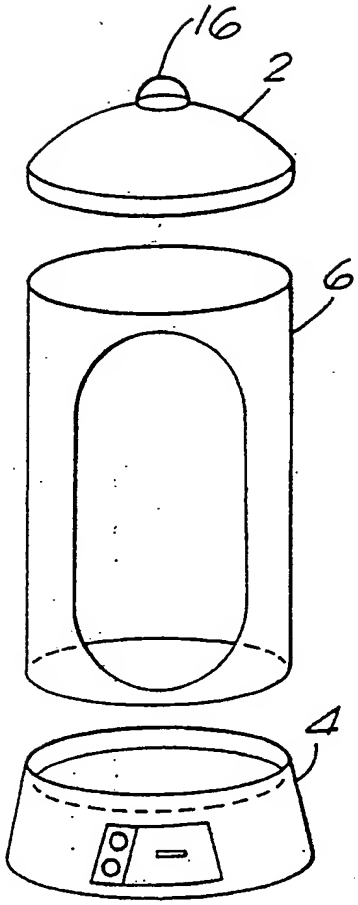


FIG. 2

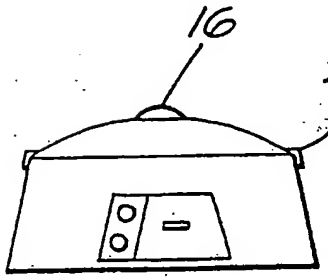
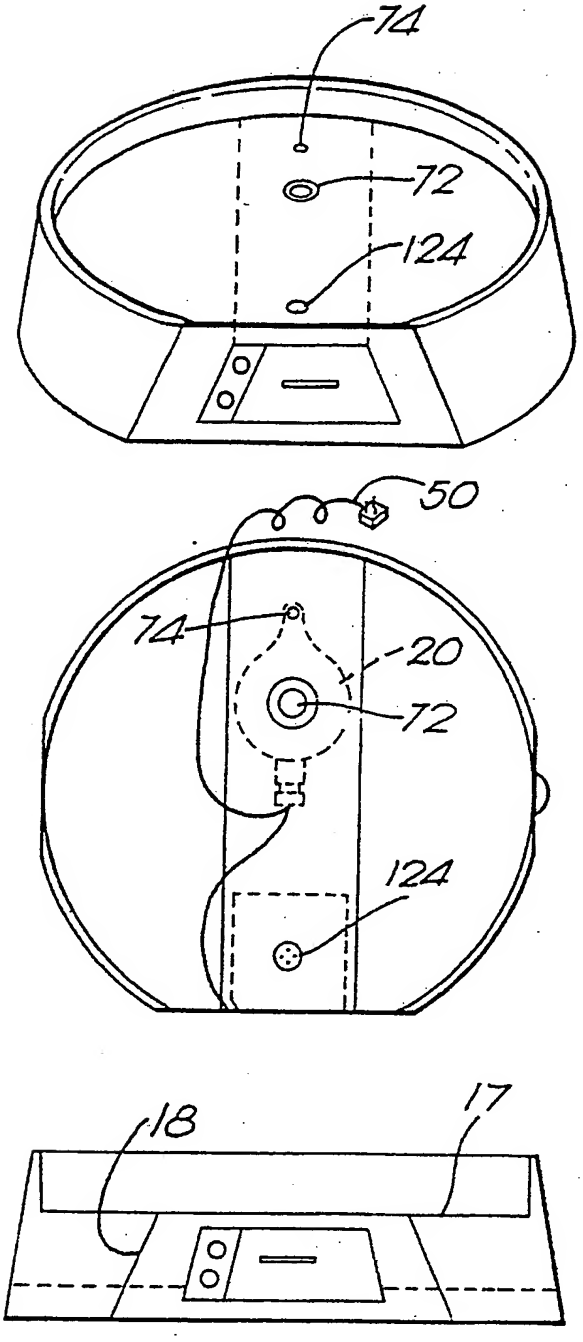


FIG. 3

FIG. 4



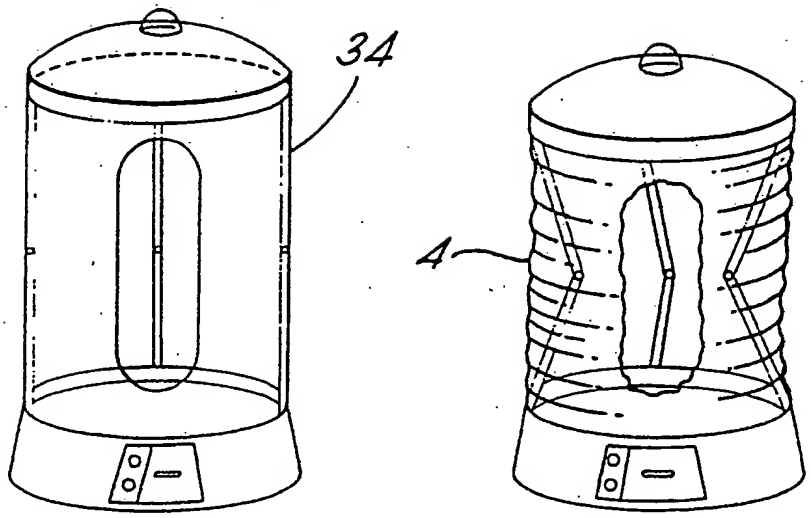
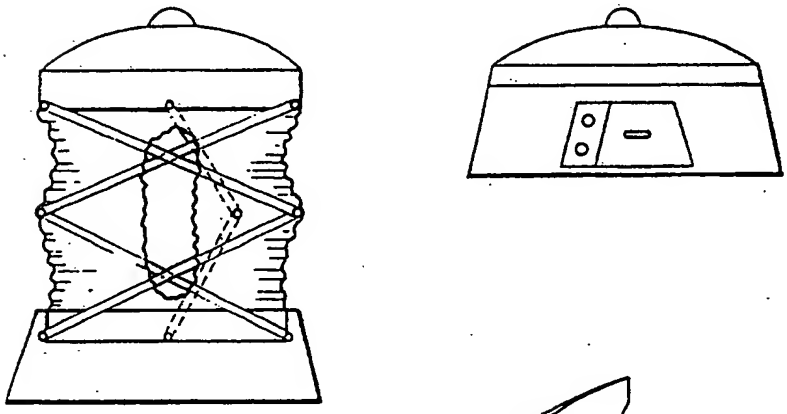


FIG. 7



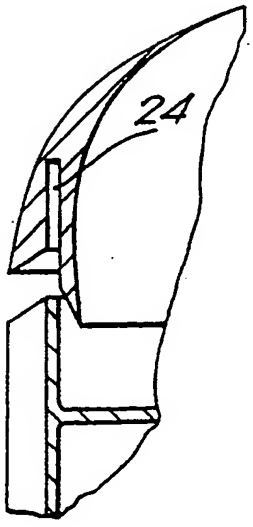
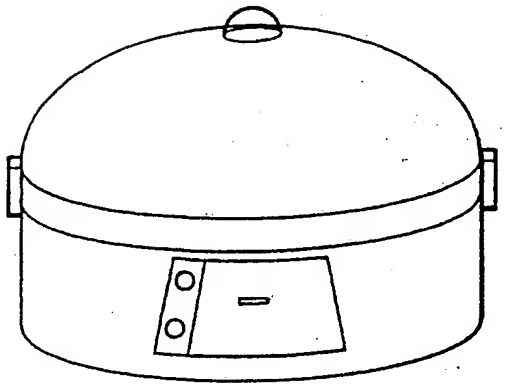
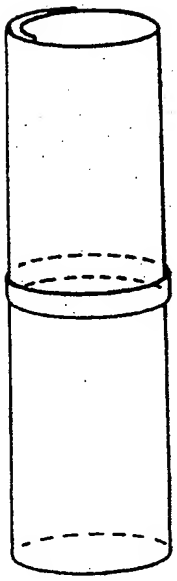
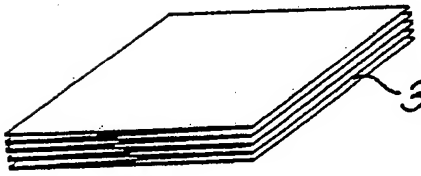


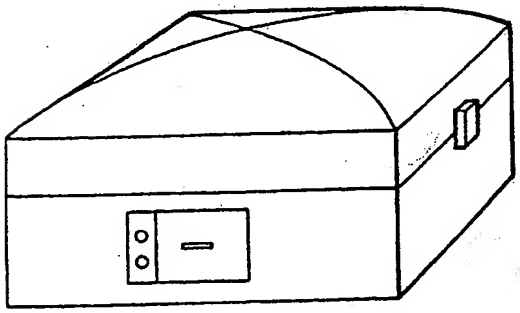
FIG. 5

FIG. 6









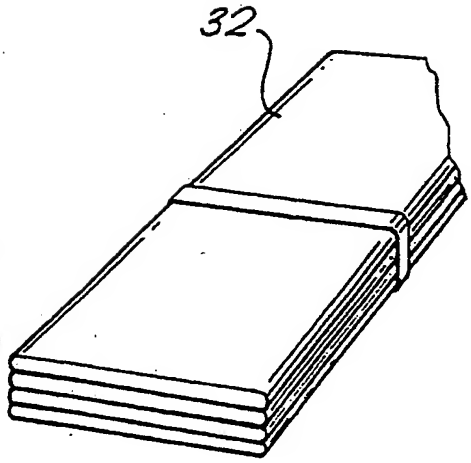


FIG. 8

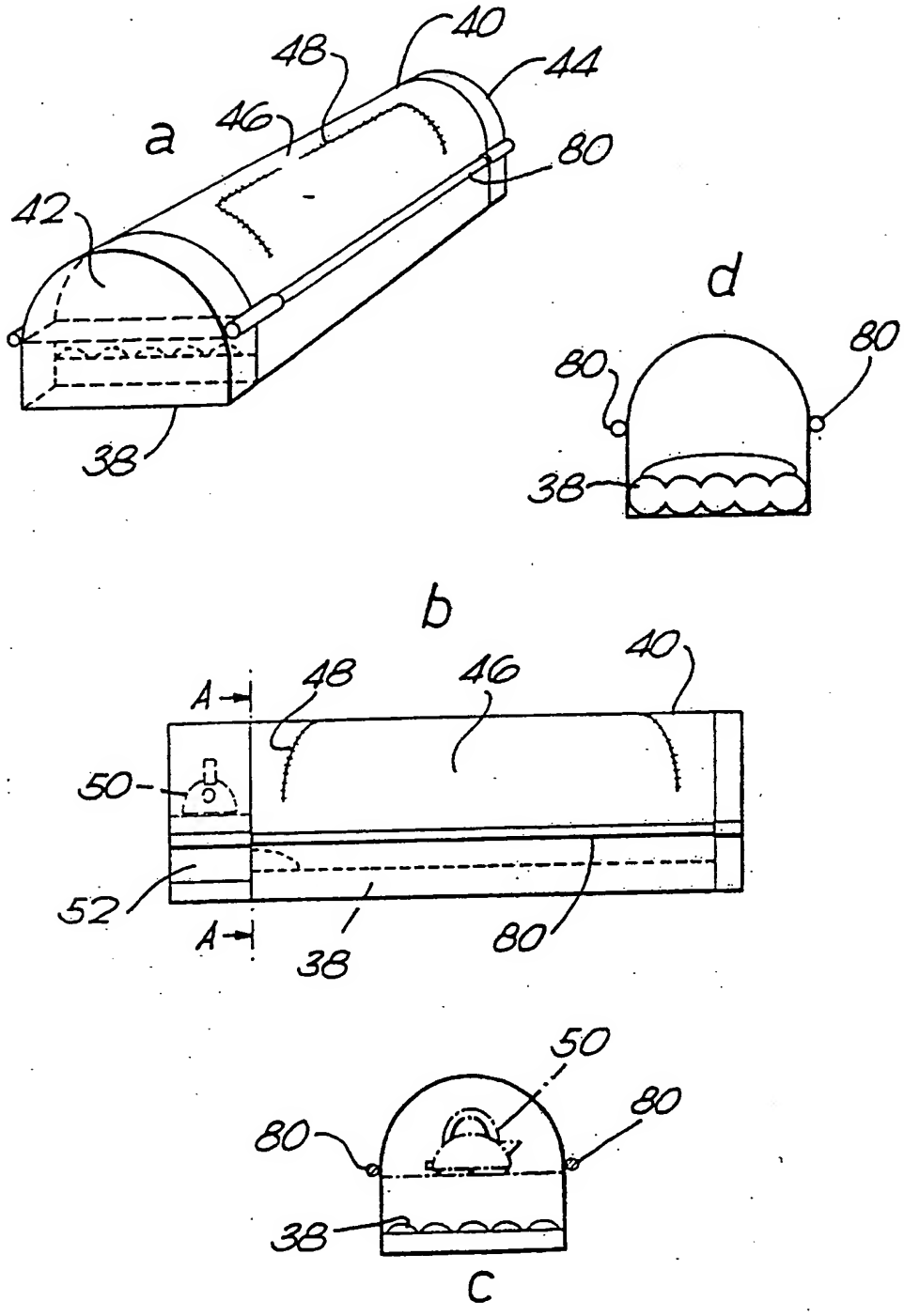


FIG. 9

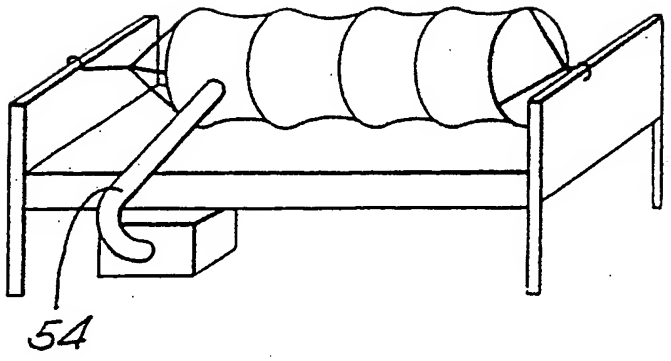
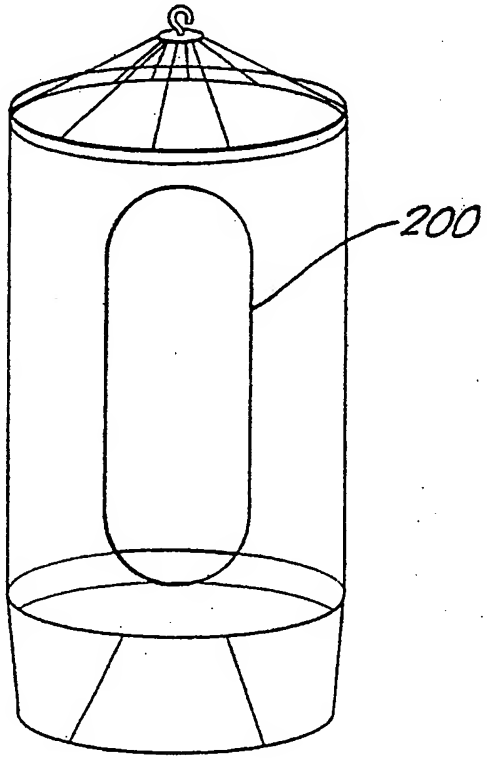


FIG. 10



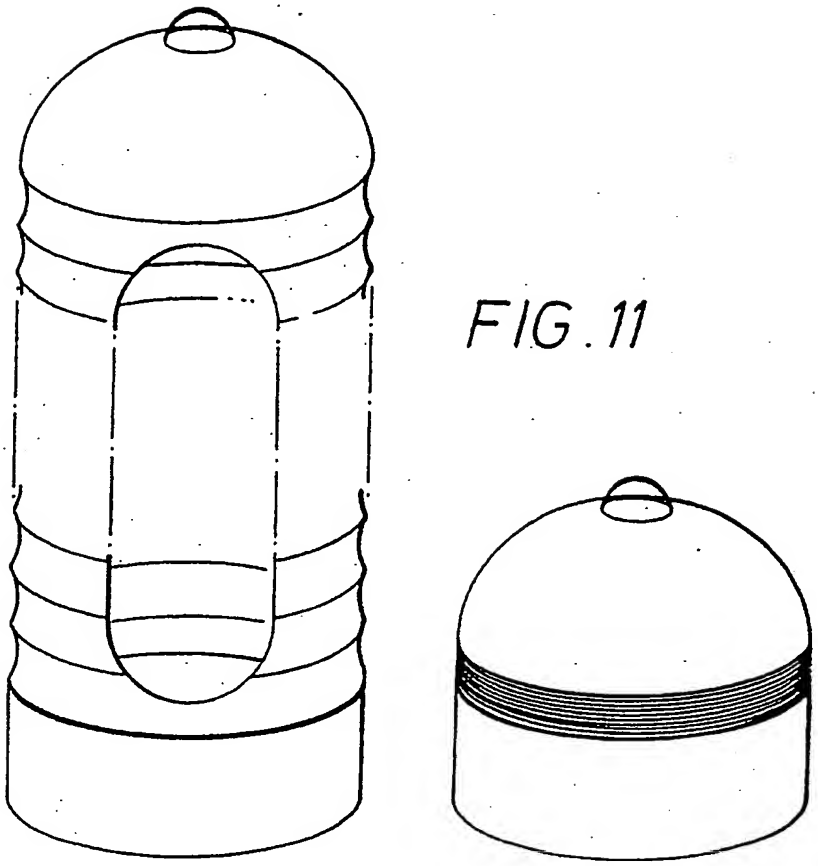
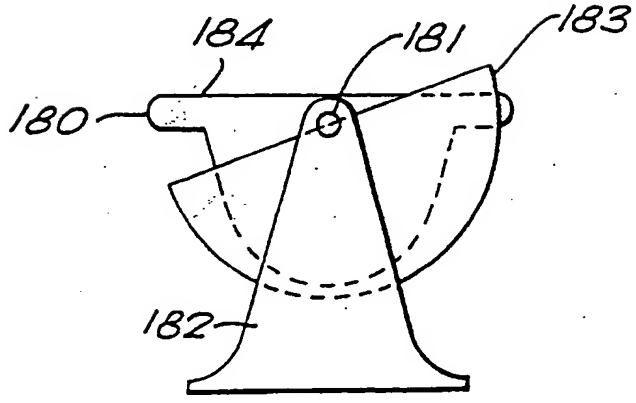


FIG. 11

FIG. 16



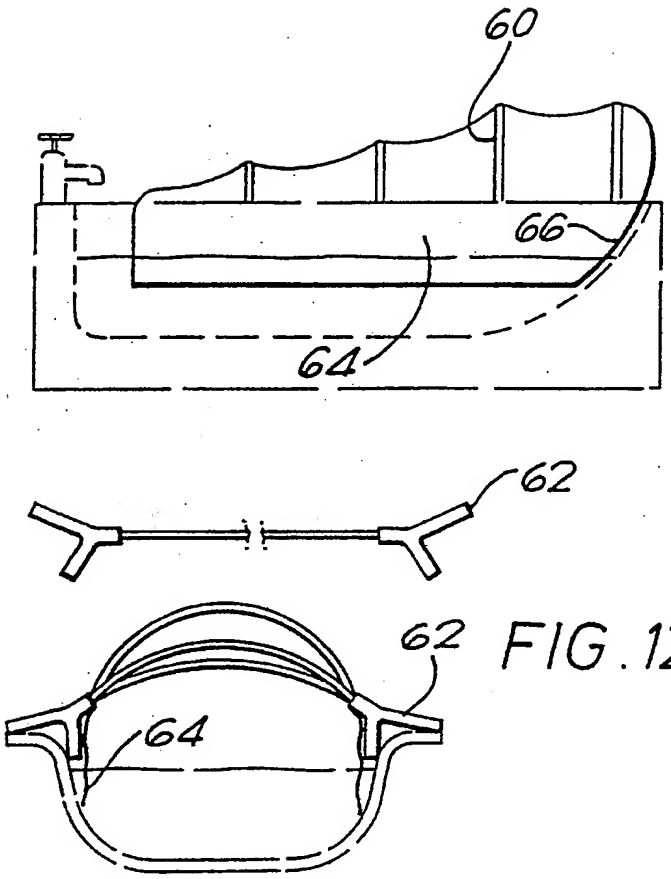


FIG. 12

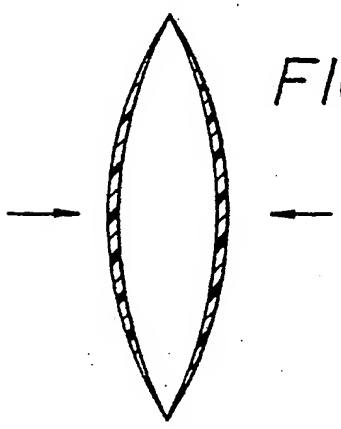
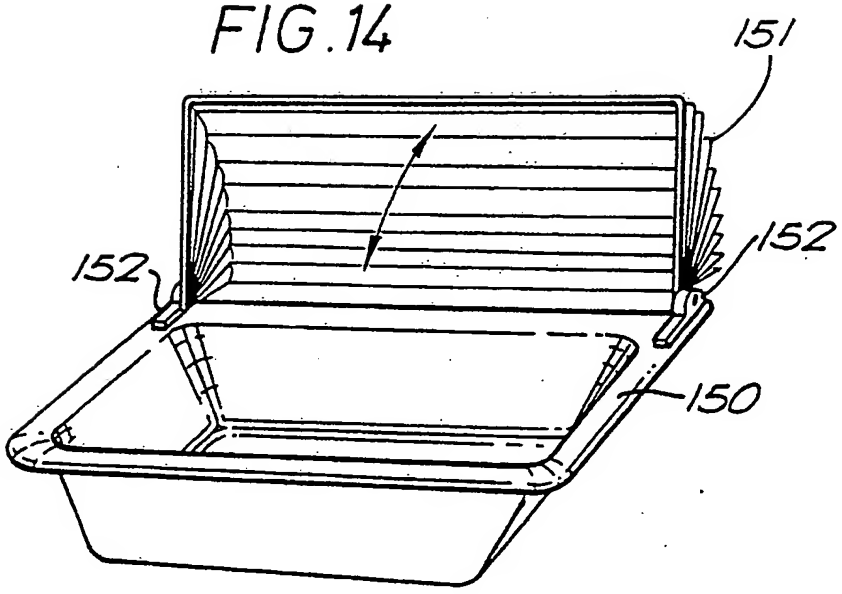


FIG. 13

FIG.14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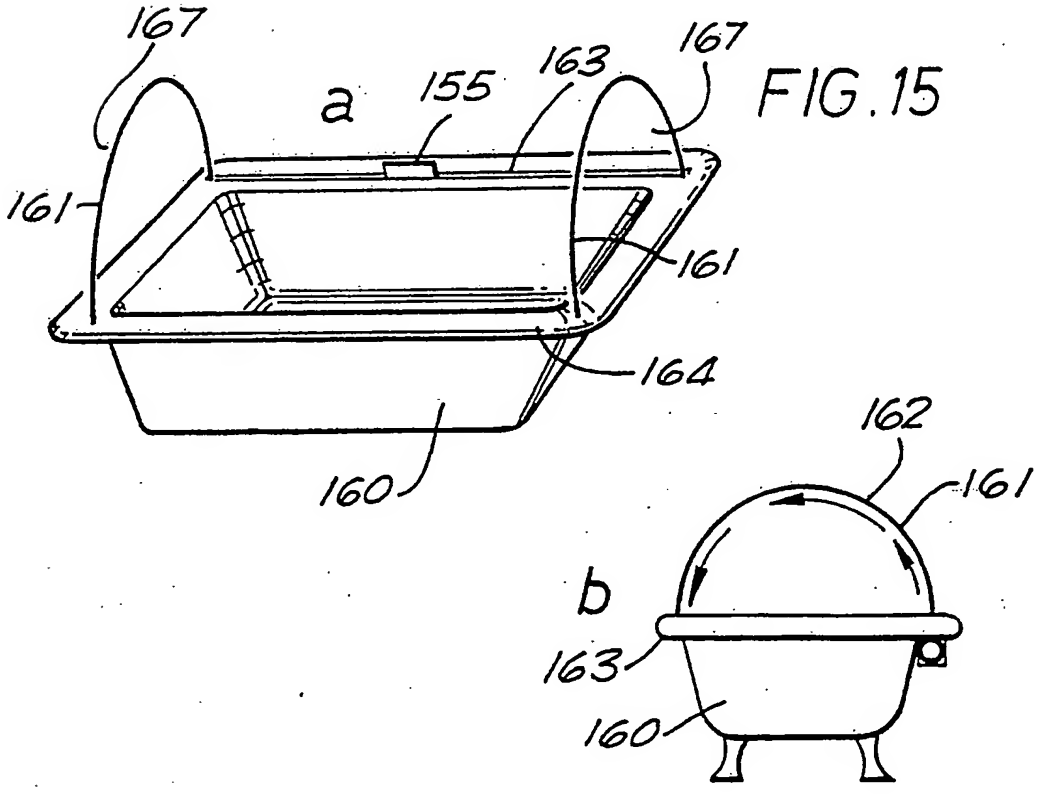
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a
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b
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FIG.15

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